

- B1
cont.
- (b) a second polynucleotide sequence homologous to the stefin homolog gene;
 - and
 - (c) a selectable marker.
-

3. (Amended) A method of producing a targeting construct capable of homologous recombination with SEQ ID NO: 1, the method comprising:

- B2
D1
cont.
- (a) providing a first polynucleotide sequence homologous to a stefin homolog gene;
 - (b) providing a second polynucleotide sequence homologous to the stefin homolog gene;
 - (c) providing a selectable marker; and
 - (d) inserting the first sequence, second sequence, and selectable marker into a vector, to produce the targeting construct.

4. (Amended) A method of producing a targeting construct capable of homologous recombination with SEQ ID NO: 1, the method comprising:

- (a) providing a polynucleotide comprising a first sequence homologous to a first region of a stefin homolog gene and a second sequence homologous to a second region of a stefin homolog gene; and
- (b) inserting a positive selection marker between the first and second sequences to form the targeting construct.

5. (Amended) A cell comprising a genome comprising a target gene sequence disrupted by homologous recombination of the target gene sequence with a sequence homologous to a region of SEQ ID NO: 1.

B3
D1

8. (Amended) A transgenic mouse comprising a genome comprising a target gene sequence disrupted by homologous recombination of the target gene sequence with a sequence homologous to a region of SEQ ID NO: 1.

B4
D1

10. (Amended) A method of producing a transgenic mouse comprising a genome comprising a target gene sequence disrupted by homologous recombination of the target gene sequence with a sequence homologous to a region of SEQ ID NO: 1, the method comprising:

- (a) introducing the targeting construct of claim 1 into a cell;

- (b) introducing the cell into a blastocyst;
(c) implanting the resulting blastocyst into a pseudopregnant mouse, wherein said pseudopregnant mouse gives birth to a chimeric mouse; and
(d) breeding the chimeric mouse to produce the transgenic mouse.

11. (Amended) A method of identifying an agent that modulates the expression of a stefin homolog, the method comprising:

- (a) providing the [a non-human] transgenic [animal] mouse of claim 8 [comprising a disruption in a stefin homolog gene];
(b) administering an agent to the non-human transgenic animal; and
(c) determining whether the expression of stefin homolog in the mouse [non-human transgenic animal] is modulated.

Claim 12 has been canceled.

13. (Amended) A method of identifying an agent that modulates the expression of stefin homolog, the method comprising:

- (a) providing the cell of claim 5;
(b) contacting the cell with an agent; and
(c) determining whether expression of the stefin homolog is modulated.

Claim 14 has been canceled.

Claim 15 has been canceled.

Claim 17 has been canceled.

18. (Amended) The transgenic mouse of claim 8, wherein the transgenic mouse exhibits increased activity, relative to a wild-type mouse.

21. (Amended) The transgenic mouse of claim 8, wherein the transgenic mouse exhibits decreased propensity for despair or depression, relative to a wild-type mouse.

23. (Amended) The transgenic mouse of claim 8, wherein the transgenic mouse exhibits a stimulus-processing deficit relative to a wild-type mouse.

25. (Amended) The transgenic mouse of claim 8, wherein the transgenic mouse exhibits schizophrenic behavior.

26. (Amended) The transgenic mouse of claim 8, wherein the transgenic mouse